

PATENT
Atty. Dkt. No. ROC820010193US3
MPS Ref. No.: IBMK10195

IN THE CLAIMS:

Please replace all previous listings of the claims with the following listing of the claims:

1. (Currently Amended) A method of processing messages in a computer, comprising:

providing in response to a request from a server application, allocating a system-supplied buffer to a sockets the server application, wherein the server application is configured to exchange data with a client application running on another computer using a network-based socket, and wherein the system supplied buffer is of a sufficient size to contain the data;

reading writing the data into the system-supplied buffer; and

passing the system-supplied buffer to the network-based socket to allow the server application to continue processing while the data is sent to the client; and

sending, by way of the network-based socket, the data from the system-supplied buffer to the other another computer via a network; and

freeing memory consumed by the system supplied buffer.

2. (Original) The method of claim 1, wherein the messages are client-server messages.

3. (Original) The method of claim 1, wherein the data is sent over a sockets streaming protocol.

4. (Cancelled)

5. (Original) The method of claim 1, wherein sending is performed without first copying the data into another buffer.

6. (Currently Amended) The method of claim 1, wherein the reading writing is performed by the sockets server application.

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7. (Currently Amended) The method of claim 1, further comprising, prior to providing the system-supplied buffer to the ~~sockets~~ server application:
receiving, by a socket, other data from the another computer via the network; and
allocating the system-supplied buffer to contain the other data.
8. (Currently Amended) The method of claim 1, wherein providing the system-supplied buffer to the ~~sockets~~ server application comprises acquiring, by a socket, the system-supplied buffer from memory space not ~~owned by~~ allocated to the ~~sockets~~ server application.
9. (Currently Amended) The method of claim 1, wherein the system-supplied buffer is provided to the ~~sockets~~ server application by a socket in response to a buffer acquisition function call from the ~~sockets~~ server application.
10. (Currently Amended) The method of claim 1, wherein the system-supplied buffer is provided to the ~~sockets~~ server application by a socket after the sockets server application requests client data received ~~on~~ over a client connection with the another computer.
11. (Canceled)
12. (Currently Amended) A computer readable medium containing a sockets-based communications program which, when executed by a computer, performs operations for processing messages, the operations comprising:
providing in response to a request from a server application, allocating a system-supplied buffer to a-sockets the server application, wherein the server application is configured to exchange data with a client application running on another computer using the communications program, and wherein the system supplied buffer is of a sufficient size to contain the data;

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receiving the system-supplied buffer from the sockets server application, wherein the system-supplied buffer contains data read written into the system-supplied buffer by the ~~sockets~~ server application; and

sending, by way of the communications program, the data from the system-supplied buffer to the another computer via a network, thereby allowing the server application to continue processing while the data is sent to the client; and

returning the allocated system supplied buffer to the computer.

13. (Original) The computer readable medium of claim 12, wherein the messages are client-server messages.

14. (Cancelled)

15. (Original) The computer readable medium of claim 12, wherein sending is performed without first copying the data into another buffer.

16. (Currently Amended) The computer readable medium of claim 12, wherein the ~~reading~~ writing is performed by the ~~sockets~~ server application.

17. (Currently Amended) The computer readable medium of claim 12, further comprising, prior to ~~providing~~ allocating the system-supplied buffer to the sockets server application:

receiving, by ~~a~~ the communications program, over a socket, other data from the another computer via the network; and

allocating the system-supplied buffer to contain the other data.

18. (Currently Amended) The computer readable medium of claim 12, wherein providing the system-supplied buffer to the ~~sockets~~ server application comprises acquiring, by a socket, the system-supplied buffer from memory space not owned by the sockets server application.

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19. (Currently Amended) The computer readable medium of claim 12, wherein the system-supplied buffer is provided to the ~~sockets~~ server application by the communication program using a socket in response to a buffer acquisition function call from the ~~sockets~~ server application.
20. (Currently Amended) The computer readable medium of claim 12, wherein the system-supplied buffer is provided to the ~~sockets~~ server application by a socket configured by a receive operation issued from the ~~sockets~~ server application and wherein the system-supplied buffer contains client data from the another computer.
21. (Original) The computer readable medium of claim 20, wherein providing the system-supplied buffer comprises allocating the system-supplied buffer according to a size of the client data.
22. (Original) The computer readable medium of claim 20, wherein the receive operation is configured with a buffer mode parameter indicating to the socket a buffer acquisition method for acquiring system-supplied buffer.
23. (Original) The computer readable medium of claim 22, wherein the receive operation is further configured with a record definition specifying to the socket a format of the client data.
24. (Currently Amended) A computer in a distributed environment, comprising:
a network interface configured to support a network connection with at least one other computer in the distributed environment;
a memory containing contents comprising:
an operating system;
a ~~sockets~~-server application;
a sockets-based communication facility;
a system-owned memory space from which to allocate system-supplied buffers; and

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an application-owned memory space owned by the sockets server application; and

a processor configured by at least a portion of the contents to perform operations for processing client-server messages, the operations comprising:

~~providing a system-supplied buffer to the sockets server application for use in sending data to the at least one other computer.~~

in response to a request from the server application, allocating a system-supplied buffer to the server application, wherein the server application is configured to exchange data with a client application running on another computer using a network-based socket, and wherein the system supplied buffer is of a sufficient size to contain the data.

25. (Original) The computer of claim 24, wherein the distributed environment is a client-server environment.

26. (Currently Amended) The computer of claim 24, wherein ~~the~~ a protocol stack is configured for a sockets streaming protocol.

27. (Original) The computer of claim 24, wherein the processor is configured to send the data without first copying the data into another buffer.

28. (Currently Amended) The computer of claim 24, wherein providing the system-supplied buffer to the sockets server application comprises acquiring, by the socket, the system-supplied buffer from the system-owned memory space.

29. (Currently Amended) The computer of claim 24, wherein the operations performed by the processor further comprise:

~~reading~~ writing data into the system-supplied buffer;

returning the system-supplied buffer to the socket-based communication facility;

and

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sending the data from the system-supplied buffer to the at least one other computer.

30. (Currently Amended) The computer of claim 29, wherein the system-supplied buffer is returned to the socket-based communication facility on a send operation and wherein sending comprises detaching the system-supplied buffer from the send operation to allow the ~~sockets~~ server application to continue processing while the data is sent.

31. (Currently Amended) The computer of claim 24, wherein the processor is configured to provide the system-supplied buffer to the ~~sockets~~ server application by the socket in response to a buffer acquisition function call from the ~~sockets~~ server application.

32. (Currently Amended) The computer of claim 24, wherein the socket is configured by a receive operation issued from the ~~sockets~~ server application and configured with a buffer mode parameter indicating to the socket a buffer acquisition method for acquiring system-supplied buffer and wherein the system-supplied buffer contains client data from the at least one other computer.

33. (Original) The computer of claim 32, wherein providing the system-supplied buffer comprises allocating the system-supplied buffer according to a size of the client data.

34. (Original) The computer of claim 32, wherein the receive operation is further configured with a record definition specifying to the socket a format of the client data.